

CLAIMS

1. A liquid crystal display device of an in-plane switching mode which comprises a pair of polarizers which are a polarizer at an output side and a polarizer at an incident side and disposed at relative positions such that absorption axes of the polarizers are approximately perpendicular to each other and at least optically anisotropic member (A), optically anisotropic member (B) and a liquid crystal cell which are disposed between the pair of polarizers, wherein $n_{zA} > n_{yA}$ and $n_{zB} > n_{yB}$ when, with respect to optically anisotropic member (A) and optically anisotropic member (B), refractive indices in a direction of an in-plane slow axis are represented by n_{xA} and n_{xB} , respectively, refractive indices in a direction in-plane and perpendicular to the direction of an in-plane slow axis are represented by n_{yA} and n_{yB} , respectively, and refractive indices in a direction of a thickness are represented by n_{zA} and n_{zB} , respectively, each measured using light having a wavelength of 550 nm; the in-plane slow axis of optically anisotropic member (A) and the in-plane slow axis of optically anisotropic member (B) are disposed at relative positions approximately parallel or approximately perpendicular to each other; and the in-plane slow axis of optically anisotropic member (A) and the absorption axis of a polarizer disposed closer to optically anisotropic member (A) are disposed at relative positions approximately parallel or approximately perpendicular to each other.
- 25 2. The liquid crystal display device according to Claim 1, wherein an absolute value of a difference between n_{xA} and n_{zA} is 0.003 or smaller,

and an absolute value of a difference between n_{xB} and n_{zB} is 0.003 or smaller.

- 3. The liquid crystal display device according to Claim 1, wherein an absolute value of a difference between n_{xA} and n_{zA} is 0.003 or smaller, and $n_{xB} > n_{zB}$.
- 4. The liquid crystal display device according to any one of Claims 1 and 2, wherein the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other, optically anisotropic member (A) and optically anisotropic member (B) are disposed between the liquid crystal cell and the polarizer at the incident side, and the in-plane slow axes of optically anisotropic member (A) and optically anisotropic member (B) are disposed at relative positions approximately perpendicular to each other.
- 5. The liquid crystal display device according to Claim 4, wherein the in-plane slow axis of optically anisotropic member (B) and the in-plane slow axis of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other, and optically anisotropic member (A) is disposed at a side of the liquid crystal cell.
- 6. The liquid crystal display device according to any one of Claims 1 and 2, wherein the absorption axis of the polarizer at the output side and the

in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other, optically anisotropic member (A) and optically anisotropic member (B) are disposed between the liquid crystal cell and the polarizer at the 5 output side, and the in-plane slow axes of optically anisotropic member (A) and optically anisotropic member (B) are disposed at relative positions approximately perpendicular to each other.

7. The liquid crystal display device according to Claim 6, wherein the 10 in-plane slow axis of optically anisotropic member (B) and the in-plane slow axis of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other, and optically anisotropic member (B) is disposed at a side of the liquid crystal cell.

15

8. The liquid crystal display device according to any one of Claims 1 and 2, wherein the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each 20 other, and optically anisotropic member (A) and optically anisotropic member (B) are disposed separately between the liquid crystal cell and the polarizer at the incident side and between the liquid crystal cell and the polarizer at the output side.

25 9. The liquid crystal display device according to Claim 8, wherein the in-plane slow axis of optically anisotropic member (B) and the in-plane

slow axis of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other, and optically anisotropic member (A) is disposed between the liquid crystal cell and the polarizer at the output side.

5

10. The liquid crystal display device according to any one of Claims 1 and 3, wherein the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other, optically anisotropic member (A) and optically anisotropic member (B) are disposed either between the liquid crystal cell and the polarizer at the incident side or between the liquid crystal cell and the polarizer at the output side, and the in-plane slow axes of optically anisotropic member (A) and the in-plane slow axis of a liquid crystal of the liquid crystal cell 15 under application of no voltage are disposed at relative positions approximately perpendicular to each other.

11. The liquid crystal display device according to Claim 10, wherein optically anisotropic member (A) is disposed at a side of the liquid crystal 20 cell.

12. The liquid crystal display device according to any one of Claims 1 and 3, wherein the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under 25 application of no voltage are disposed at relative positions parallel to each other, optically anisotropic member (A) and optically anisotropic member

(B) are disposed separately between the liquid crystal cell and the polarizer at the incident side and between the liquid crystal cell and the polarizer at the output side, and the in-plane slow axis of optically anisotropic member (A) and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other.

13. The liquid crystal display device according to any one of Claims 1 to 12, wherein optically anisotropic member (A) and optically anisotropic member (B) comprise a layer selected from following layers (i) to (iii):

- (i) A layer comprising a material having a negative value of intrinsic birefringence,
- (ii) A layer comprising discotic liquid crystal molecules or lyotropic liquid crystal molecules,
- 15 (iii) A layer comprising a photo-isomerizable substance.